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EXAMINER

NGUYEN, LUONG TRUNG

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 09/817,926	Applicant(s) ISHIMURA ET AL.	
	Examiner LUONG T. NGUYEN	Art Unit 2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 February 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4-16,19-21,23 and 25-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4-16,19-21,23 and 25-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election of Species I, Figures 1, 2, 4 in the reply filed on 1/18/2005 is acknowledged.
2. Claims 7-8, 10, 11-13 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected Species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 1/18/2005.

Response to Arguments

3. Applicant's arguments filed on 02/11/2008 have been fully considered but they are not persuasive. Since the rejection of claims 4 and 26 were not addressed properly in the previous office action, therefore the rejection has been withdrawn. However, upon further consideration, a new non-final office action sets forth below.

In re page 14, Applicants argue that Nishimura does not teach outputting motion image provided by CCD 6.

In response, the Examiner disagrees since CCD 6 output motion-picture video signals image, which is stored in the field memory circuit 23 (figure 1, column 5, lines 10-28).

In re pages 15-16, Applicants argue that with Nishimura, a user does not have an option to record either a still image or motion image.

In response, the Examiner considers that with Nishimura, a user does have option to record either a still image or motion image. Nishimura disclose switching means 36, which allow the user to select still image from the still image memory 34 or motion image from filed memory circuit 23 (figure 1, column 5, lines 9-40).

In re pages 21 -22, the Applicants argue that the teachings of Nishimura, Kobayashi and Kaku, taken alone or in any proper combination, fails to disclose or suggest "...a recording control circuit for, when the operation section instructs to switch an image to be displayed on the display device, if an image displayed on the display device is switched to the still image by the image signal switching circuit, setting the image recording mode to the still image recording mode interlockingly with display of the still image, and if an image displayed on the display device is switched to the motion image by the image signal switching circuit, setting the image recording mode to the motion image recording mode interlockingly with the display of the motion image; and, a recording processing circuit for, when the operation section instructs image recording, if an image displayed on the display device is switched to the still image by the image signal switching circuit, recording the still image in the still image recording mode onto a predetermined recording medium, and if an image displayed on the display device is switched to the motion image by the image signal switching circuit, recording the motion in the image recording mode onto the predetermined recording medium" as recited in claim 1.

In response, regarding claim 1, the Applicants amended claim 1 with limitation "a recording control circuit for, when the operation section instructs to switch an image to be displayed on the display device, if an image displayed on the display device is switched to the

still image by the image signal switching circuit, setting the image recording mode to the still image recording mode interlockingly with display of the still image, and if an image displayed on the display device is switched to the motion image by the image signal switching circuit, setting the image recording mode to the motion image recording mode interlockingly with the display of the motion image; and, a recording processing circuit for, when the operation section instructs image recording, if an image displayed on the display device is switched to the still image by the image signal switching circuit, recording the still image in the still image recording mode onto a predetermined recording medium, and if an image displayed on the display device is switched to the motion image by the image signal switching circuit, recording the motion in the image recording mode onto the predetermined recording medium.” The Examiner considers that claim 1 as amended still does not distinguish from Nishimura in view of Kobayashi and Kaku.

Nishimura discloses a recording control circuit for, when the operation section instructs to switch an image to be displayed on the display device (i.e., the switching means 36 is used for switching between motion-picture mode or freeze display mode, figure 1, column 5, lines 9-29), if an image displayed on the display device is switched to the still image by the image signal switching circuit, setting the image recording mode to a still image recording mode interlockingly with the display of the still image (i.e., upon depress a freeze button, a freeze-image of a subject is instantly displayed on the monitor device and is stored in the still memory circuit 34 and are simultaneously recorded on external memory 38, figure 1, column 4, line 49 – column 5, line 40, column 6, lines 15-25. Nishimura also discloses that upon depress a freeze button, a freeze-image is displayed on the monitor according to the picture data which had been stored in the still image memory circuit 34, see column 6, lines 42-50; this reads on “setting the

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image recording mode to a still image recording mode interlockingly with the display of the still image”); a recording processing circuit for, when the operation section instructs image recording, if an image displayed on the display device is switched to the still image by the image signal switching circuit (i.e., the switching means 36 is used for switching between motion-picture mode or freeze display mode, figure 1, column 5, lines 9-29), recording the still image in the still image recording mode onto a predetermined recording medium (i.e., upon depress a freeze button, a freeze-image of a subject is instantly displayed on the monitor device and is stored in the still memory circuit 34 and are simultaneously recorded on external memory 38, figure 1, column 4, line 49 – column 5, line 40, column 6, lines 15-25).

Nishimura does not disclose a recording circuit for if an image displayed on the display device is switched to the motion image by the image signal switching circuit, setting the image recording mode to a motion image recording mode interlockingly with the display of the motion image; and a recording processing circuit for if an image displayed on the display device is switched to the motion image by the image signal switching circuit, recording the motion image in the motion image recording mode onto the predetermined recording medium. However Kaku teaches these features. Kaku teaches an electronic camera, in which the system controller carries out a monitor mode in step S1, motion images are displayed on the monitor 9; if motion image record mode is selected (step 7), motion image recording process is executed (step 11), see figure 3, column 4, lines 20-65. This corresponds to “setting the image recording mode to a motion image recording mode interlockingly with the display of the motion image.”

In re page 28, Applicants argue that Kobayashi, Nishimura and Kaku do not disclose applicants' independent claim 21.

In response, regarding claim 21, Applicants amended claim 21 with limitation “a recording mode setting step for, if the displayed image judging step judges that the image displayed on the displayed device is the still image, setting the image recording mode to a still image recording mode interlockingly with the display of the still image, and if the displayed image judging step judges that the image displayed on the display device is the motion image, setting the image recording mode to a motion image recording mode interlockingly with the display of the motion image.”

Nishimura and Kaku teach these features. Nishimura teaches an endoscope, in which the switching means 36 is used for switching between motion-picture mode or freeze display mode, figure 1, column 5, lines 9-29, and upon depress a freeze button, a freeze command is supplied to the still image control circuit 35 from input terminal 37, the control circuit 35 judges if it is whether a motion picture or a freeze image and sends a signal to the switching means 36 for switching between motion-picture or freeze display mode, the freeze image is recorded on memory circuit 34 and external storage device 38 (figure 1, column 4, line 49 – column 5, line 40, column 6, lines 15-25). Nishimura also discloses that upon depress a freeze button, a freeze-image is displayed on the monitor according to the picture data which had been stored in the still image memory circuit 34, see column 6, lines 42-50; this reads on “setting the image recording mode to a still image recording mode interlockingly with the display of the still image.” And Kaku teaches an electronic camera, in which the system controller carries out a monitor mode in step S1, motion images are displayed on the monitor 9; if motion image record mode is selected

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(step 7), motion image recording process is executed (step 11), see figure 3, column 4, lines 20-65. This corresponds to “setting the image recording mode to a motion image recording mode interlockingly with the display of the motion image.”

Claim Objections

4. Claims 1, 4-6, 11, 14-15, 16, 19, 20,21, 23, 25-34 are objected to because of the following informalities:

Claim 1 (lines 9, 11, 12, 13, 14, 19, 21), claim 4 (line 3), claim 6 (lines 8, 9, 11, 16, 18, 21), claim 21 (line 14), claim 25 (lines 9, 11, 15, 17), claim 26 (line 5), claim 32 (lines 12, 14, 18), “an image” should be changed to --the image--.

Claim 4 (lines 3-4, 6), claim 26 (lines 3-4, 7-8), “a still image or a motion image” should be changed to --the still image or the motion image--.

Claim 5 (lines 2-3), claim 19 (line 2), claim 27 (line 3), “a motion image” should be changed to --the motion image--.

Claim 5 (line 3), claim 6 (line 3), claim 19 (line 2), claim 27 (lines 3-4), claim 28 (line 2), “a still image” should be changed to --the still image--.

Claim 6 (line 12), “selecting circuit setting” should be changed to --selecting circuit, setting--.

Claim 25 (line 5), “a display image” should be changed to --a display device--.

Claim 25 (line 5), claim 32 (lines 6, 12), “the image” should be changed to --an image--.

Claim 25 (line 10), claim 32 (line 7), “the image recording mode” should be changed to --an recording mode--.

Claim 33 (line 2), claim 34 (lines 1-2), “the still image producing circuit” should be changed to --a still image producing circuit--.

Claim 34 (line 2), “a still image” should be changed to --the still image--.

Claims 4-6, 11, 14-15 are objected as being dependent on claim 1.

Claims 19, 20 are objected as being dependent on claim 16.

Claim 23 is objected as being dependent on claim 21.

Claims 26-31 are objected as being dependent on claim 25.

Claims 33-34 are objected as being dependent on claim 32.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 5-6, 16, 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nishimura (US 5,270,810) in view of Kobayashi (US 4,755,873) further in view of Kaku (US 6,968,119).

Regarding claim 1, Nishimura discloses an image recording apparatus comprising:
a connector through which a motion image is inputted (the connection between endoscope 1 and processor 20, figure 1, column 3, lines 34-45, column 6, lines 3-8);

a memory which an image of the motion image inputted through the connector, which constructs one frame, is stored as still image (still image memory 34, figure 1, column 4, lines 49-68);

display device on which the image is displayed (monitor device, figure 1, column 4, lines 1-5);

an image signal switching circuit for switching motion image inputted image through the connector and the still image read from the memory, and outputting a selected one to the display device (switch means 36, figure 1, column 4, lines 1-5, column 5, lines 9-28);

a recording control circuit for, when the operation section instructs to switch an image to be displayed on the display device (i.e., the switching means 36 is used for switching between motion-picture mode or freeze display mode, figure 1, column 5, lines 9-29), if an image displayed on the display device is switched to the still image by the image signal switching circuit, setting the image recording mode to a still image recording mode interlockingly with the display of the still image (i.e., upon depress a freeze button, a freeze-image of a subject is instantly displayed on the monitor device and is stored in the still memory circuit 34 and are simultaneously recorded on external memory 38, figure 1, column 4, line 49 – column 5, line 40, column 6, lines 15-25. Nishimura also discloses that upon depress a freeze button, a freeze-image is displayed on the monitor according to the picture data which had been stored in the still image memory circuit 34, see column 6, lines 42-50; this reads on “setting the image recording mode to a still image recording mode interlockingly with the display of the still image”);

a recording processing circuit for, when the operation section instructs image recording, if an image displayed on the display device is switched to the still image by the image signal

switching circuit (i.e., the switching means 36 is used for switching between motion-picture mode or freeze display mode, figure 1, column 5, lines 9-29), recording the still image in the still image recording mode onto a predetermined recording medium (i.e., upon depress a freeze button, a freeze-image of a subject is instantly displayed on the monitor device and is stored in the still memory circuit 34 and are simultaneously recorded on external memory 38, figure 1, column 4, line 49 – column 5, line 40, column 6, lines 15-25).

Nishimura fails to specifically disclose an operation section for instructing the image signal switching circuit to switch an image to be displayed on the display device, and for instructing start of image recording. However, Kobayashi teaches an endoscope includes a video camera 46, which is provided with remote control switches (an operation section), including freeze switch 47, release switch 48, and VTR switch 49 (figure 4-5, column 2, lines 63-68, column 4, lines 60-65, column 5, lines 30-49, column 5, line 65 to column 6, line 8). Therefore, it would have been obvious to one of ordinary skill in the art to modify the device in Nishimura by the teaching of Kobayashi in order to obtain an endoscope device which allows an operator performs an accurate switching operation easily and quickly, without regard to the type of endoscope used (column 6, lines 1-7).

Nishimura and Kobayashi fail to specifically disclose a recording circuit for if an image displayed on the display device is switched to the motion image by the image signal switching circuit, setting the image recording mode to a motion image recording mode interlockingly with the display of the motion image; and a recording processing circuit for if an image displayed on the display device is switched to the motion image by the image signal switching circuit,

recording the motion image in the motion image recording mode onto the predetermined recording medium.

However Kaku teaches these features. Kaku teaches an electronic camera, in which the system controller carries out a monitor mode in step S1, motion images are displayed on the monitor 9; if motion image record mode is selected (step 7), motion image recording process is executed (step 11), see figure 3, column 4, lines 20-65. This corresponds to “setting the image recording mode to a motion image recording mode interlockingly with the display of the motion image.”

Therefore, it would have been obvious to one of ordinary skill in the art to modify the device in Nishimura and Kobayashi by the teaching of Kaku in order to obtain an endoscope device, which recording both motion and still image. This allows a user can review both motion and still image.

Regarding claim 5, Nishimura and Kobayashi fail to specifically disclose the recording processing circuit includes a motion image compressing processing circuit that compresses motion image, and a still image compressing processing circuit that compresses a still image; and the recording processing circuit compresses the motion image or still image according to a recording mode set by the recording control circuit. However, Kaku teaches an electronic camera, which includes a motion image compressing processing circuit that compresses a motion image and a still image compressing processing circuit that compresses a still image (figures 4-7, column 8, lines 36-59). Therefore, it would have been obvious to one of ordinary skill in the art

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to modify the device in Nishimura and Kobayashi by the teaching of Kaku in order to increase the capacity of the memory to store more images.

Regarding claim 6, Nishimura discloses wherein when the operation section instructs start image recording, the recording control circuit instructs updating of a still image stored in the memory according to the state of the image signal switching circuit, and instructs the recording circuit to record the still image updated (renewal of data, column 3, lines 64-68, column 6, lines 42-60).

Regarding claim 16, Nishimura discloses an image recording apparatus comprising:
an image selecting circuit for selecting either of motion image and a still image that are outputted (switch means 36, figure 1, column 4, lines 1-5, column 5, lines 9-28);

a display device on which the motion image or the still image selected by the image selecting circuit is displayed (monitor device, figure 1, column 4, lines 1-5);

a recording control circuit for, when the operation section instructs to switch an image to be displayed on the display device (i.e., the switching means 36 is used for switching between motion-picture mode or freeze display mode, figure 1, column 5, lines 9-29), if an image displayed on the display device is switched to the still image by the image signal switching circuit, setting the image recording mode to a still image recording mode interlockingly with the display of the still image (i.e., upon depress a freeze button, a freeze-image of a subject is instantly displayed on the monitor device and is stored in the still memory circuit 34 and are simultaneously recorded on external memory 38, figure 1, column 4, line 49 – column 5, line 40,

column 6, lines 15-25. Nishimura also discloses that upon depress a freeze button, a freeze-image is displayed on the monitor according to the picture data which had been stored in the still image memory circuit 34, see column 6, lines 42-50; this reads on “setting the image recording mode to a still image recording mode interlockingly with the display of the still image”);

a recording processing circuit for, when the operation section instructs image recording, if an image displayed on the display device is switched to the still image by the image signal switching circuit (i.e., the switching means 36 is used for switching between motion-picture mode or freeze display mode, figure 1, column 5, lines 9-29), recording the still image in the still image recording mode onto a predetermined recording medium (i.e., upon depress a freeze button, a freeze-image of a subject is instantly displayed on the monitor device and is stored in the still memory circuit 34 and are simultaneously recorded on external memory 38, figure 1, column 4, line 49 – column 5, line 40, column 6, lines 15-25);

an image recording medium onto which an image recorded by the recording processing circuit (memory 38, figure 1, column 5, lines 30-40).

Nishimura fails to specifically disclose an operation section for instructing the image signal switching circuit to switch an image to be displayed on the display device, and for instructing start of image recording. However, Kobayashi teaches an endoscope includes a video camera 46, which is provided with remote control switches (an operation section), including freeze switch 47, release switch 48, and VTR switch 49 (figure 4-5, column 2, lines 63-68, column 4, lines 60-65, column 5, lines 30-49, column 5, line 65 to column 6, line 8). Therefore, it would have been obvious to one of ordinary skill in the art to modify the device in Nishimura by the teaching of Kobayashi in order to obtain an endoscope device which allows an operator

performs an accurate switching operation easily and quickly, without regard to the type of endoscope used (column 6, lines 1-7).

Nishimura and Kobayashi fail to specifically disclose a recording circuit for if an image displayed on the display device is switched to the motion image by the image signal switching circuit, setting the image recording mode to a motion image recording mode interlockingly with the display of the motion image; and a recording processing circuit for if an image displayed on the display device is switched to the motion image by the image signal switching circuit, recording the motion image in the motion image recording mode onto the predetermined recording medium.

However, Kaku teaches an electronic camera, in which the system controller carries out a monitor mode in step S1, motion images are displayed on the monitor 9; if motion image record mode is selected (step 7), motion image recording process is executed (step 11), see figure 3, column 4, lines 20-65. This corresponds to “setting the image recording mode to a motion image recording mode interlockingly with the display of the motion image.”

Therefore, it would have been obvious to one of ordinary skill in the art to modify the device in Nishimura and Kobayashi by the teaching of Kaku in order to obtain an endoscope device, which recording both motion and still image. This allows a user can review both motion and still image.

Regarding claim 19, Nishimura discloses a still image producing circuit (still image memory circuit 34 and still image control circuit 35, figure 1, column 4, lines 49-68) that

produces a still image from a motion image, wherein the motion image and the still image produced by the still image producing circuit are outputted to the image selecting circuit.

Regarding claim 20, Nishimura discloses memory in which a still image constructing one frame is stored (still image memory circuit 34, figure 1, column 4, lines 49-68).

7. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nishimura (US 5,270,810) in view of Kobayashi (US 4,755,873) and Kaku (US 6,968,119) further in view of Yamagishi et al. (US 7,339,620).

Regarding claim 4, Nishimura, Kobayashi and Kaku fail to specifically disclose an information memory in which information indicating whether an image outputted the display device via the image signal switching circuit is a still image or a motion image is stored; and the recording control circuit automatically determines a recording mode of the recording processing circuit by referring information stored in the information memory when the operation section instructs image recording. However, Yamagishi et al. teaches an image sensing apparatus 100, which captures and stores still or moving images (figure 1, column 4, lines 13-21). The image sensing apparatus 100 comprises single/continuous shot flag, which is stored in the internal memory of the system control circuit 50 or memory 52; if the single shot is selected, the control circuit 50 sets a single/continuous shot flag to indicated single shot mode (still image, step S112); if the continuous shot is selected, the control circuit 50 sets a single/continuous shot flag to indicated continuous shot mode (motion image, step S113), see figures 1-4, column 9, line 59

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– column 10, line 8. After that the single shot or continuous shot is stored in recording medium 200 or 210 in step S138, figure 4, column 14, lines 10-16.

Therefore, it would have been obvious to one of ordinary skill in the art to modify the device in Nishimura, Kobayashi and Kaku by the teaching of Yamagishi et al. in order to inform the user the shot mode of the image sensing apparatus: single shot mode or continuous mode. This allows the user to record image at a desired mode.

8. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nishimura (US 5,270,810) in view of Kobayashi (US 4,755,873) and in view of Kaku (US 6,968,119) further in view of Wright et al. (US 5,825,982).

Regarding claim 9, Nishimura, Kobayashi and Kaku fail to specifically disclose a graphic processor for producing graphic image data in response to an instruction from the recording control circuit, wherein the image signal switching circuit outputs graphic image data generated processor to the display device. However, Wright et al. discloses the graphic overlay processor 58, which generates a series of static graphic images 64-70 that overlay onto the video image 62 displayed by the monitor 18 (figure 4, column 3, lines 62-67). Therefore, it would have been obvious to one of ordinary skill in the art to modify the device in Nishimura, Kobayashi and Kaku by the teaching of Wright et al. in order to obtain a device, which includes an interface that allows a surgeon to remotely control surgical device and conditions of an operation room (column 1, lines 42-45).

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9. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nishimura (US 5,270,810) in view of Kobayashi (US 4,755,873) and in view of Kaku (US 6,968,119) further in view of Sakai et al. (US 5,260,795).

Regarding claim 14, Nishimura, Kobayashi and Kaku fail to specifically disclose a voice recording processing circuit that records a voice signal. However, Sakai et al. teaches a camera includes a microphone 21 for recording sounds (column 2, lines 35-49). Therefore, it would have been obvious to one of ordinary skill in the art to modify the device in Nishimura, Kobayashi and Kaku by the teaching of Sakai et al. in order to obtain a device which has the ability of recording sound together with recording image data.

10. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nishimura (US 5,270,810) in view of Kobayashi (US 4,755,873) and in view of Kaku (US 6,968,119) further further in view of Takeuchi et al. (US 6,243,531).

Regarding claim 15, Nishimura, Kobayashi and Kaku fail to specifically disclose wherein the remaining storage capacity of the recording medium, which is available for storage of information, is detected to be indicated. However, Takeuchi et al. teaches a recording apparatus includes a display circuit 116 displays the number of remaining recordable still images (figure 9, column 7, line 62 to column 8, line 5). Therefore, it would have been obvious to one of ordinary skill in the art to modify the device in Nishimura, Kobayashi and Kaku by the teaching of Takeuchi et al. in order to allow the user know the number of recordable still images by seeing the display (column 8, lines 8-13).

11. Claims 21, 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi (US 4,755,873) in view of Nishimura (US 5,270,810) further in view of Kaku (US 6,968,119).

Regarding claim 21, Kobayashi discloses an image recording method to be implemented in an image recording apparatus having the ability to select one of a motion and a still image, the selection performed by an image selecting circuit (the endoscope can display still image on still image monitor 33c and motion image on monitor TV 33b, figure 4, column 5, lines 5-19) to output the selected image to a display device, the image recording method comprising:

- a recording starting step of instructing start of image recording (VTR switch 29, figures 4-5, column 5, lines 5-19);

- a recording mode setting step for, setting the still image recording mode to a still image recording mode (column 5, lines 30-49); and

- a recording processing step of recording an image displayed on the display device onto a recording medium according to the result of setting at the recording mode setting step (column 5, lines 30-49).

Kobayashi fails to specifically disclose a displayed image judging step for judging whether an image selected by the image selecting circuit and displayed on the display device is the still image or the motion image, setting the image recording mode to a still image recording mode interlockingly with the display of the still image. However, Nishimura teaches an endoscope, in which upon depress a freeze button, a freeze command is supplied to the still image control circuit 35 from input terminal 37, the control circuit 35 judges if it is whether a motion picture or a freeze image and sends a signal to the switching means 36 for switching between motion-picture or freeze display mode (figure 1, column 4, line 49 – column 5, line 29,

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column 6, lines 25-42. Nishimura also discloses that upon depress a freeze button, a freeze-image is displayed on the monitor according to the picture data which had been stored in the still image memory circuit 34, see column 6, lines 42-50; this reads on “setting the image recording mode to a still image recording mode interlockingly with the display of the still image”).

Therefore, it would have been obvious to one of ordinary skill in the art to modify the device in Kobayashi by the teaching of Nishimura in order to obtain an endoscope device which has the ability to recognize the display mode such as motion-picture mode or still picture mode.

Kobayashi and Nishimura fail to specifically disclose if the displayed image judging step judges that the image displayed on the display device is the motion image, setting the image recording mode to a motion image recording mode interlockingly with the display of the motion image.

However, Kaku teaches an electronic camera, in which the system controller carries out a monitor mode in step S1, motion images are displayed on the monitor 9; if motion image record mode is selected (step 7), motion image recording process is executed (step 11), see figure 3, column 4, lines 20-65. This corresponds to “setting the image recording mode to a motion image recording mode interlockingly with the display of the motion image.”

Therefore, it would have been obvious to one of ordinary skill in the art to modify the device in Kobayashi and Nishimura by the teaching of Kaku in order to obtain an endoscope device, which recording both motion and still image. This allows a user can review both motion and still image.

Regarding claim 23, Kobayashi fails to specifically disclose a still image updating step of, when the displayed image is judged to be the motion image at the displayed image judging step, updating the still image, and a still image recording step of setting the image recording mode to a still image recording mode for recording the still image updated. However, Nishimura teaches a data renewing signal generator 26 for renewing still image (figure 1, column 3, lines 64-68, column 6, lines 42-60). Therefore, it would have been obvious to one of ordinary skill in the art to modify the device in Kobayashi by the teaching of Nishimura in order to renew (update) still image data, which is extremely convenient from the standpoint of management of recorded data because the recorded information in the external memory can be edited into a suitable form after examination or diagnosis (column 6, lines 57-60).

12. Claims 25, 27, 28, 32-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nishimura (US 5,270,810) in view of Kaku (US 6,968,119).

Regarding claim 25, Nishimura discloses an image recording apparatus comprising:
a connector through which a motion image is inputted (the connection between endoscope 1 and processor 20, figure 1, column 3, lines 34-45, column 6, lines 3-8);
a memory which an image of the motion image inputted through the connector, which constructs one frame, is stored as still image (still image memory 34, figure 1, column 4, lines 49-68);
display device on which the image is displayed (monitor device, figure 1, column 4, lines 1-5);

an image signal switching circuit for switching motion image inputted image through the connector and the still image read from the memory, and outputting a selected one to the display device (switch means 36, figure 1, column 4, lines 1-5, column 5, lines 9-28);

a recording control circuit for, if an image displayed on the display device is switched to the still image by the image signal switching circuit (i.e., the switching means 36 is used for switching between motion-picture mode or freeze display mode, figure 1, column 5, lines 9-29), setting the image recording mode to a still image recording mode interlockingly with the display of the still image (i.e., upon depress a freeze button, a freeze-image of a subject is instantly displayed on the monitor device and is stored in the still memory circuit 34 and are simultaneously recorded on external memory 38, figure 1, column 4, line 49 – column 5, line 40, column 6, lines 15-25. Nishimura also discloses that upon depress a freeze button, a freeze-image is displayed on the monitor according to the picture data which had been stored in the still image memory circuit 34, see column 6, lines 42-50; this reads on “setting the image recording mode to a still image recording mode interlockingly with the display of the still image”);

a recording processing circuit for, if an image displayed on the display device is switched to the still image by the image signal switching circuit (i.e., the switching means 36 is used for switching between motion-picture mode or freeze display mode, figure 1, column 5, lines 9-29), recording the still image in the still image recording mode onto a predetermined recording medium (i.e., upon depress a freeze button, a freeze-image of a subject is instantly displayed on the monitor device and is stored in the still memory circuit 34 and are simultaneously recorded on external memory 38, figure 1, column 4, line 49 – column 5, line 40, column 6, lines 15-25).

Nishimura fails to specifically disclose a recording circuit for if an image displayed on the display device is switched to the motion image by the image signal switching circuit, setting the image recording mode to a motion image recording mode interlockingly with the display of the motion image; and a recording processing circuit for if an image displayed on the display device is switched to the motion image by the image signal switching circuit, recording the motion image in the motion image recording mode onto the predetermined recording medium.

However, Kaku teaches an electronic camera, in which the system controller carries out a monitor mode in step S1, motion images are displayed on the monitor 9; if motion image record mode is selected (step 7), motion image recording process is executed (step 11), see figure 3, column 4, lines 20-65. This corresponds to “setting the image recording mode to a motion image recording mode interlockingly with the display of the motion image.”

Therefore, it would have been obvious to one of ordinary skill in the art to modify the device in Nishimura and Kobayashi by the teaching of Kaku in order to obtain an endoscope device, which recording both motion and still image. This allows a user can review both motion and still image.

Regarding claim 27, Nishimura fail to specifically disclose the recording processing circuit includes a motion image compressing processing circuit that compresses motion image, and a still image compressing processing circuit that compresses a still image; and the recording processing circuit compresses the motion image or still image according to a recording mode set by the recording control circuit. However, Kaku teaches an electronic camera, which includes a motion image compressing processing circuit that compresses a motion image and a still image

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compressing processing circuit that compresses a still image (figures 4-7, column 8, lines 36-59). Therefore, it would have been obvious to one of ordinary skill in the art to modify the device in Nishimura by the teaching of Kaku in order to increase the capacity of the memory to store more images.

Regarding claim 28, Nishimura discloses wherein when starting image recording, the recording control circuit instructs updating of a still image stored in the memory according to the state of the image signal switching circuit, and instructs the recording circuit to record the still image updated (renewal of data, column 3, lines 64-68, column 6, lines 42-60).

Regarding claim 32, Nishimura discloses an image recording apparatus comprising:
an image selecting circuit for selecting either of motion image and a still image that are outputted (switch means 36, figure 1, column 4, lines 1-5, column 5, lines 9-28);

a display device on which the motion image or the still image selected by the image selecting circuit is displayed (monitor device, figure 1, column 4, lines 1-5);

a recording control circuit for, if an image displayed on the display device is switched to the still image by the image selecting circuit (i.e., the switching means 36 is used for switching between motion-picture mode or freeze display mode, figure 1, column 5, lines 9-29), setting the image recording mode to a still image recording mode interlockingly with the display of the still image (i.e., upon depress a freeze button, a freeze-image of a subject is instantly displayed on the monitor device and is stored in the still memory circuit 34 and are simultaneously recorded on external memory 38, figure 1, column 4, line 49 – column 5, line 40, column 6, lines 15-25).

Nishimura also discloses that upon depress a freeze button, a freeze-image is displayed on the monitor according to the picture data which had been stored in the still image memory circuit 34, see column 6, lines 42-50; this reads on “setting the image recording mode to a still image recording mode interlockingly with the display of the still image”);

a recording processing circuit for, if an image displayed on the display device is switched to the still image by the image selecting circuit (i.e., the switching means 36 is used for switching between motion-picture mode or freeze display mode, figure 1, column 5, lines 9-29), recording the still image in the still image recording mode onto a predetermined recording medium (i.e., upon depress a freeze button, a freeze-image of a subject is instantly displayed on the monitor device and is stored in the still memory circuit 34 and are simultaneously recorded on external memory 38, figure 1, column 4, line 49 – column 5, line 40, column 6, lines 15-25);

an image recording medium onto which an image recorded by the recording processing circuit (memory 38, figure 1, column 5, lines 30-40).

Nishimura fails to specifically disclose a recording circuit for if an image displayed on the display device is switched to the motion image by the image selecting circuit, setting the image recording mode to a motion image recording mode interlockingly with the display of the motion image; and a recording processing circuit for if an image displayed on the display device is switched to the motion image by the image selecting circuit, recording the motion image in the motion image recording mode onto the predetermined recording medium.

However, Kaku teaches an electronic camera, in which the system controller carries out a monitor mode in step S1, motion images are displayed on the monitor 9; if motion image record mode is selected (step 7), motion image recording process is executed (step 11), see figure 3,

column 4, lines 20-65. This corresponds to “setting the image recording mode to a motion image recording mode interlockingly with the display of the motion image.”

Therefore, it would have been obvious to one of ordinary skill in the art to modify the device in Nishimura and Kobayashi by the teaching of Kaku in order to obtain an endoscope device, which recording both motion and still image. This allows a user can review both motion and still image.

Regarding claim 33, Nishimura discloses a still image producing circuit (still image memory circuit 34 and still image control circuit 35, figure 1, column 4, lines 49-68) that produces a still image from a motion image, wherein the motion image and the still image produced by the still image producing circuit are outputted to the image selecting circuit.

Regarding claim 34, Nishimura discloses memory in which a still image constructing one frame is stored (still image memory circuit 34, figure 1, column 4, lines 49-68).

13. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nishimura (US 5,270,810) in view of Kaku (US 6,968,119) further in view of Yamagishi et al. (US 7,339,620).

Regarding claim 26, Nishimura and Kaku fail to specifically disclose an information memory in which information indicating whether an image outputted the display device via the image signal switching circuit is a still image or a motion image is stored; and the recording control circuit, when recording an image, automatically determines a recording mode of recording processing by the recording processing circuit by referring information stored in the

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information memory indicating whether said still image is a still image or a motion image.

However, Yamagishi et al. teaches an image sensing apparatus 100, which captures and stores still or moving images (figure 1, column 4, lines 13-21). The image sensing apparatus 100 comprises single/continuous shot flag, which is stored in the internal memory of the system control circuit 50 or memory 52; if the single shot is selected, the control circuit 50 sets a single/continuous shot flag to indicated single shot mode (still image, step S112); if the continuous shot is selected, the control circuit 50 sets a single/continuous shot flag to indicated continuous shot mode (motion image, step S113), see figures 1-4, column 9, line 59 – column 10, line 8. After that the single shot or continuous shot is stored in recording medium 200 or 210 in step S138, figure 4, column 14, lines 10-16.

Therefore, it would have been obvious to one of ordinary skill in the art to modify the device in Nishimura and Kaku by the teaching of Yamagishi et al. in order to inform the user the shot mode of the image sensing apparatus: single shot mode or continuous mode. This allows the user to record image at a desired mode.

14. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nishimura (US 5,270,810) in view of Kaku (US 6,968,119) further in view of Wright et al. (US 5,825,982).

Regarding claim 29, Nishimura and Kaku fail to specifically disclose a graphic processor for producing graphic image data in response to an instruction from the recording control circuit, wherein the image signal switching circuit outputs graphic image data generated processor to the display device. However, Wright et al. discloses the graphic overlay processor 58, which generates a series of static graphic images 64-70 that overlay onto the video image 62 displayed

by the monitor 18 (figure 4, column 3, lines 62-67). Therefore, it would have been obvious to one of ordinary skill in the art to modify the device in Nishimura and Kaku by the teaching of Wright et al. in order to obtain a device, which includes an interface that allows a surgeon to remotely control surgical device and conditions of an operation room (column 1, lines 42-45).

15. Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nishimura (US 5,270,810) in view of Kaku (US 6,968,119) further in view of Sakai et al. (US 5,260,795).

Regarding claim 30, Nishimura and Kaku fail to specifically disclose a voice recording processing circuit that records a voice signal. However, Sakai et al. teaches a camera includes a microphone 21 for recording sounds (column 2, lines 35-49). Therefore, it would have been obvious to one of ordinary skill in the art to modify the device in Nishimura and Kaku by the teaching of Sakai et al. in order to obtain a device which has the ability of recording sound together with recording image data.

16. Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nishimura (US 5,270,810) in view of Kaku (US 6,968,119) further in view of Takeuchi et al. (US 6,243,531).

Regarding claim 31, Nishimura and Kaku fail to specifically disclose wherein the remaining storage capacity of the recording medium, which is available for storage of information, is detected to be indicated. However, Takeuchi et al. teaches a recording apparatus includes a display circuit 116 displays the number of remaining recordable still images (figure 9, column 7, line 62 to column 8, line 5). Therefore, it would have been obvious to one of ordinary skill in the art to modify the device in Nishimura and Kaku by the teaching of Takeuchi et al. in

order to allows the user know the number of recordable still images by seeing the display (column 8, lines 8-13).

Conclusion

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to LUONG T. NGUYEN whose telephone number is (571) 272-7315. The examiner can normally be reached on 7:30AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, DAVID L. OMETZ can be reached on (571) 272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LTN
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/LUONG T NGUYEN/
Examiner, Art Unit 2622

